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*1 THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

Board of Patent Appeals and Interferences

Patent and Trademark Office (P.T.O.)

EX PARTE STUARDO A. ROBLES, THANH PHAM AND BANG C. NGUYEN

Appeal No. 1997-0350

Application No. 08/191,384 [FN1]

NO DATE REFERENCE AVAILABLE FOR THIS DOCUMENT

Patent Counsel

Applied Materials, Inc.

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Before KIMLIN, JOHN D. SMITH and HANLON

Administrative Patent Judges

KIMLIN

Administrative Patent Judge

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ON BRIEF

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-16, 20 and 22-32, all the claims remaining in the present application. Claim 1 is illustrative:

1. A method of cleaning unwanted film deposition from a throttle valve mounted on a vacuum chamber for regulating gas pressure in said chamber, comprising the steps of:
positioning said throttle valve juxtaposed to said vacuum chamber; and
flowing at least one cleaning gas into said vacuum chamber at a temperature and pressure in contact with said throttle valve for a length of time such that said unwanted film deposition is removed from said throttle valve.

The examiner relies upon the following reference as evidence of obviousness:

Law et al. (Law) 4,960,488 Oct. 2, 1990

Appellants' claimed invention is directed to a method of cleaning a throttle valve employed in a vacuum deposition system. The method entails positioning the throttle valve in juxtaposition to the vacuum chamber rather than downstream from the shut-off valve. According to appellants, the claimed arrangement eliminates the need of completely disassembling and manually cleaning the throttle valve after approximately 500 to 1,000 deposition cycles (see pages 4 and 5 of the present specification).

Appealed claims 1-16, 20 and 22-32 stand rejected under 35 U.S.C. § 103 as being unpatentable over Law.

Upon careful consideration of the opposing arguments presented on appeal, we find ourselves in agreement with appellants that the prior art cited by the examiner fails to establish a prima facie case of obviousness for the claimed subject matter. Accordingly, we will not sustain the examiner's rejection.

The examiner recognizes that Law, the sole reference relied upon, "does not disclose positioning the throttle valve juxtaposed to the deposition chamber" (page 2 of final rejection). [FN2] Notwithstanding this lack of disclosure in Law of appellants' departure from the admitted prior art, it is the examiner's position that the claimed positioning of the throttle valve would have been obvious to one of ordinary skill in the art since Law teaches that the disclosed localized etch proceeds at a faster rate than the extended etch which cleans the throttle valve. Based on this reference teaching, the examiner concludes that "faster etch cleaning of the throttle valve could be accomplished by bringing the throttle valve within range of the localized etching process" (sentence bridging pages 2 and 3 of the final rejection, emphasis added).

*2 While the examiner's reasoning has a certain, immediate logical appeal, it is well settled that the mere fact that the prior art could be modified would not have made the modification obvious unless the prior art suggested the desirability of the modification. In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984), and cases cited therein. Manifestly, it is quite evident from a review of appellants' specification that Law could be modified in the manner proposed by the examiner to arrive at appellants' claimed invention. Although it stands to reason that the throttle valve could be more effectively cleaned if positioned as close as possible to the vacuum chamber, such that the localized etching step of Law could act upon the throttle valve, the examiner has not established on this record that modifying the prior art arrangement of throttle valve and shut-off valve would have been an obvious option for one of ordinary skill in the art, particularly in terms of how such a rearrangement of the valves would affect the overall operation of the deposition process. In our view, the examiner has established no more than that it would have been obvious for one of ordinary skill in the art to try to modify the relative locations of Law's throttle and shut-off valves in order to determine the advantages and disadvantages of doing so.

The examiner cites In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) for the general proposition that "a mere shifting the location of parts" of an apparatus is a matter of obviousness for the skilled artisan (page 4 of Answer). However, our review of the case reveals no such proposition or rule of law. In relevant part, the court stated: As to that limitation it was held that there would be no invention in shifting the starting switch disclosed by Cannon to a different position since the operation of the device would not thereby be modified.

We find no error in the holding as to claim 3. Japikse, 181 F.2d 1019, 1023, 86 USPQ 70, 73 (CCPA 1950). We think it is quite clear that Japikse is limited to the facts of the case, i.e., the position of the starting switch is immaterial and, therefore, obvious, since the overall operation of the device would not be affected by such change. In the present case, the examiner has not established that the same could be said for changing the relative locations of Law's throttle and shut-off valves.

In conclusion, based on the foregoing, we are constrained to reverse the examiner's rejection.

REVERSED

BOARD OF PATENT APPEALS AND INTERFERENCES

EDWARD C. KIMLIN

Administrative Patent Judge

JOHN D. SMITH

Administrative Patent Judge

ADRIENE LEPIANE HANLON

Administrative Patent Judge

FN1. Application for patent filed February 3, 1994.

FN2. The Examiner's Answer incorporated by reference the final rejection.

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